

Title (en)

HEATED TIP FUEL INJECTOR WITH ENHANCED HEAT TRANSFER

Title (de)

BRENNSTOFFEINSPRITZVENTIL MIT BEHEIZTER EINSPRITZDÜSE

Title (fr)

INJECTEUR DE CARBURANT A POINTE CHAUFFEE A TRANSFERT THERMIQUE AMELIORE

Publication

EP 1157204 B1 20050316 (EN)

Application

EP 00909917 A 20000114

Priority

- US 0001103 W 20000114
- US 26140799 A 19990303

Abstract (en)

[origin: WO0052323A1] A heated tip fuel injector (156A) includes a housing (112) having a bore formed therein for receiving fuel under pressure; a valve seat (34) mounted at one end of the housing, the valve seat including an orifice; a needle valve (30) having one end mounted to an armature (24) and another end which contacts the valve seat (34) to close off fuel outflow from the bore and which is lifted from the valve seat to inject fuel; a heater (50) disposed in the housing upstream of the valve seat (34) and extending around the needle valve (30); and at least one flow disturbing element (192A) disposed upstream of the heater (50). The flow-disturbing element (192A) enhances heat transfer from the heater to the fuel.

IPC 1-7

F02M 53/06; **F02M 61/16**; **F02M 51/06**

IPC 8 full level

F02M 51/00 (2006.01); **F02M 51/06** (2006.01); **F02M 53/06** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP KR US)

F02M 51/005 (2013.01 - EP US); **F02M 51/0671** (2013.01 - EP US); **F02M 53/06** (2013.01 - EP KR US); **F02M 61/162** (2013.01 - EP US)

Cited by

DE102008024143A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 0052323 A1 20000908; DE 60018718 D1 20050421; DE 60018718 T2 20060511; EP 1157204 A1 20011128; EP 1157204 B1 20050316; JP 2002538369 A 20021112; KR 20010102311 A 20011115; US 6135360 A 20001024

DOCDB simple family (application)

US 0001103 W 20000114; DE 60018718 T 20000114; EP 00909917 A 20000114; JP 2000602515 A 20000114; KR 20017010658 A 20010822; US 26140799 A 19990303